

DIY ELISA Kit EndoMark[®] H1

Human endocan / ESM-1 Immunoassay for quantification of human endocan in biological fluids

The **DIY (Do It Yourself) ELISA kit EndoMark[®] H1 (LIK-1101)**, allows you to:



- quantify human endocan as a secreted molecule in cell culture supernatants or in body fluids
- evaluate endothelium activation during inflammatory events
- evaluate endothelium activation during neoangiogenesis
- evaluate endothelium activation in presence of pharmacological compounds

● Background : Endocan / ESM-1 as a biomarker of endothelium activation

Endocan also called endothelial cell specific molecule 1 (ESM-1), is a circulating **proteoglycan** (secreted molecule) in endothelial cells (1,2,3). *In vitro*, endocan / ESM-1 is upregulated in presence of pro-angiogenic molecules such as VEGF (4,5,6,7), in presence of pro-inflammatory molecules such as TNF alpha or in presence of LPS (1,8,9). Moreover, endocan / ESM-1 was shown to bind to LFA-1 and to inhibit transendothelial migration of leucocytes during inflammation (6,8).

Blood levels of endocan / ESM-1 are increased in patients suffering from lung cancer, kidney cancer, liver cancer (5,6,7), acute myeloid leukemia and in patients suffering from sepsis (9,10). Recently, endocan has been described as a **biomarker** of tip cells during neoangiogenesis process (6) and *in vitro*, the VEGF-induced endocan secretion was shown to completely abolish in presence of anti-angiogenic drugs (5,7).

Clearly, endocan / ESM-1 appeared today as a pertinent **biomarker** of endothelial dysfunction in cancers and in diseases when endothelium gets challenged (9,11).

● DIY ELISA kit EndoMark® H1 (LIK-1101) description

The human endocan / ESM-1 **DIY (Do It Yourself) ELISA kit EndoMark H1** contains the key components required for the detection and quantification of human endocan / ESM-1 in cell culture supernatants and in biological fluids (serum, plasma, vitreous, ascites liquid, etc).

- Reagents provided:
 - one vial of capture antibody (monoclonal antibody against human endocan)
 - one vial of detection antibody (monoclonal antibody against human endocan)
 - two vials of standard for quantification (recombinant endocan)
- All reagents provided are stored at 4°C
- Easy to use immunoassay / highly reproducible results

Main features of DIYEK H1 (LIK-1101)

Catalogue No.	LIK-1101
Specificity	Human and monkey endocan / ESM-1
Analytical range	0.4 to 10 ng/mL
Sensitivity	0.2 ng/mL
Sample type	Sera, plasma, vitreous, ascites liquid, cell cultures
Sample volume	100 µL

● References

1. Lassalle et al. (1996) J. Biol. Chem. 271 : 20458
2. Bechard et al. (2001) J. Biol. Chem. 276 : 48341
3. Sarrazin et al. (2006) BBA Rev. Cancer 1765 : 25
4. Scherpereel et al. (2003) Cancer Res. 63 : 6084
5. Leroy et al. (2010) Histopathology 56 : 180
6. Sarrazin et al. (2010) J. Canc. Sci. Ther. 2 : 47
7. Grigoriu et al. (2006) Clin. Cancer Res. 12 : 4575
8. Bechard et al. (2001) J. Immunol. 167 : 3099
9. Scherpereel et al. (2006) Crit. Care Med. 34 : 532
10. Hatfield et al. (2011) Hematol. 16:351-6.
11. Mikkelsen et al. (2011) J. Crit. Care In Press

This product is for research use only and is not intended for diagnostic or therapeutic use

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